

Work Order ID 64753-1

Thursday, December 16, 2010 9:48:19 AM



Page 1

Item ID: D3179-041

Accept



Setup Start



Revision ID:

Item Name: Fwd Litter Tie Down

Stop



Start Date: 12/16/2010 Start Qty: 6.00

Required Date: 12/21/2010 Req'd Qty: 6.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date: 10-12-16

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3179

Rev C

100

0.00



BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut blanks: 12.150" long

SL 10/12/20 (6)

110

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

1- Mill as per Folio FA297 Rev: AA & Dwg D3179-1 Rev: C 2- Deburr per dwg D3179-1

SL 10/12/22 (6)

120

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

SL 10/12/22 (6)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 64753

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Page 2

Item ID: D3179-041

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Revision ID:

Item Name: Fwd Litter Tie Down

Start Date: 12/16/2010 Start Qty: 6.00

Required Date: 12/21/2010 Req'd Qty: 6.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC8- Inspect parts - second check

0.00

H.A 10/12/22

6

Ø

QC

Memo

0.00

Quality Control

140

Chemical Conversion Coat per QSI005 4.1

0.00

HandFinish

Memo

0.00

Hand Finishing

6 BB 10-12-23

150

QC3- Inspect Part Finish

0.00

H 10/12/23

6

Ø

QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
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Work Order ID 64753



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Thursday, December 16, 2010 9:48:19 AM

Item ID: D3179-041

Accept



Setup Start



Revision ID:

Item Name: Fwd Litter Tie Down

Stop



Start Date: 12/16/2010 Start Qty: 4.00



Cust Item ID:

Required Date: 12/21/2010 Req'd Qty: 6.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



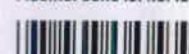
QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

M115951.

Memo

0.00

Powder Coating

START TIME:

8:15

FINISH TIME:

OVEN TEMPERATURE:

8:15.

6

10-12-23.

170

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

⇒ 10/12/23

6 d

180

Small Fab

0.00



Small Fab

Memo

0.00

Small Fab

Assemble as per Dwg D3179

5/11/01/06 (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Work Order ID 64753

Thursday, December 16, 2010 9:48:19 AM



Page 4

Item ID: D3179-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Fwd Litter Tie Down

Start Date: 12/16/2010 Start Qty: 6.00



Cust Item ID:

Required Date: 12/21/2010 Req'd Qty: 6.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Sulaloz

②

200

Identify as per dwg & Stock Location: _____

0.00



Packaging

Memo

0.00

Packaging

PPP
64753

Pep/1/12 ②

210

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/01/12

MF
11-01-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

Thursday, December 16, 2010 9:48:24 AM

Page 1

Work Order ID: 64753

Parent Item: D3179-041

Parent Item Name: Fw Litter Tie Down



Start Date: 12/16/2010

Required Date: 12/21/2010

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP A1 03.01.09 Added Acid etch end alodine RF
IPP Rev:B Added Powder Coat 07-07-04 JLM
IPP Rev:C 08-12-10 add part list DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
NAS1149D0332J Washer		Purchased	No			100	Each	141.0000	3	18			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST298				141					
				11488				141					
D2372 Quick Release		Manufactured	No			180	Each	27.0000	2	12			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST012				27					
				57765				2					
				60716				25					
D2444 Pip Pin Assembly		Manufactured	No			180	Each	6.0000	1	6			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST014				6					
				57766				3					
				60154				1					
				64089				2					

EP 11/01/06

M116441 (6x)

EP 11/01/06

664755 (4x)

EP 11/01/06

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, December 16, 2010 9:48:24 AM

Page 2

Work Order ID: 64753

Parent Item: D3179-041

Parent Item Name: Fwd Litter Tie Down

Start Date: 12/16/2010

Required Date: 12/21/2010

Start Qty: 6.00

Required Qty: 6.00

D6201 Manufactured No 180 f 17.8468 1.0125 6.394737



"T" Extrusion

Location	Loc Qty	Loc Code
MAT05	17.84684	
56424	2.11	
57767	15.73684	

MS21042L3 Purchased No 180 Each 1,932.000 1



Nut

Location	Loc Qty	Loc Code
ST300	1932	
114784	9	
115835	996	
116373	27	
116391	900	

MS27039-1-13 Purchased No 180 Each 58.0000 1



Screw

Location	Loc Qty	Loc Code
ST292	58	
110844	58	

Handwritten notes and signatures:

- 6.4
- 2 10/12/20
- 2 11/01/06
- 2 11/01/06
- 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	64753
Description: Fwd Litter Tie Down Bracket		Part Number:	D3179-1
Inspection Dwg: D3179	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.00	+/-0.030	1.001	✓		Vern. J-3	
Ø0.242	+0.005/-0.001	.243	✓		"	
R0.40	+/-0.030	R.40	✓			
0.375	+/-0.010	.364	✓		"	"stock mat"
Ø0.191	+0.005/-0.001	.192	✓		"	
1.00	+/-0.030	1.002	✓		"	
1.70	+/-0.030	1.690	✓		H-G	
4.00	+/-0.030	3.990	✓		"	
1.50	+/-0.030	1.502	✓		"	
0.750	+/-0.010	.750	✓		"	
1.50	+/-0.030	1.501	✓		"	
10.500	+/-0.010	10.500	✓		Vern. CNG-02	
4.250	+/-0.010	4.250	✓		"	
0.750	+/-0.010	.751	✓			
1.000	+/-0.010	.999	✓			
12.00	+/-0.030	12.003	✓		Vern. CNG-02	
1.00	+/-0.030	1.002	✓		Vern. J-3	
8.00	+/-0.030	8.00	✓			
Ø0.191	+0.005/-0.001	.192	✓			
R0.37	+/-0.030	.375	✓			
0.97	+/-0.030	.965	✓			
1.86	+/-0.030	1.857	✓		H-G	
1.750	+/-0.010	.750	✓			
0.375	+/-0.010	.366	✓			"stock mat"
2.875	+/-0.010	2.875	✓			
0.500	+/-0.010	.501	✓			
1.250	+/-0.010	1.253	✓			
1.625	+/-0.010	1.628	✓			
3.31	+/-0.030	3.312	✓			

Measured by: JH	Audited by: B.A	Prototype Approval:	N/A
Date: 10/12/22	Date: 10/12/22	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	09.04.05	New Issue	P/O D3179-041	KJ/DD

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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NOTE: Date & initial all entries

MS27039-1-13 SCREW
NAS1149D0332J WASHER, 3 PL
MS21042L3 NUT

D2444
PIP PIN

D3179-1 LITTER TIE
DOWN BRACKET

D2372 QUICK
RELEASE
2 PL

 **D3179-041 FWD LITTER TIE DOWN BRACKET**

NOTES:
1) D3179-041 WEIGHT: 2.79 lbs

Item	Qty	Part Number	Description
1	X	D3179-041	FWD LITTER TIE DOWN
2	2	D2372	QUICK RELEASE
3	1	D2444	PIP PIN
4	1	D3179-1	LITTER TIE DOWN BRACKET
5	1	MS21042L3	NUT
6	1	MS27039-1-13	SCREW
7	3	NAS1149D0332J	WASHER (OR AN980JD10L)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 64573
B/10-12-16

RECEIVED
08/11/07

C	ADD D3179-041 & PART LIST (ZN B6-1, D2-1); D3179-1 WAS D3179 (ZN A5-2); REMOVE ENGRAVE PIN	RF	08.11.07
B	REFORMAT DRAWING; FINISH WAS ANODIZE	DC	07.06.06
A	NEW ISSUE	RF	02.12.09
REV.	DESCRIPTION	BY	DATE
DESIGN	BW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	D3179	SHEET 1 OF 2
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	LITTER TIE DOWN BRACKET	NTS
DATE	08.11.07	COPYRIGHT © 1995 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

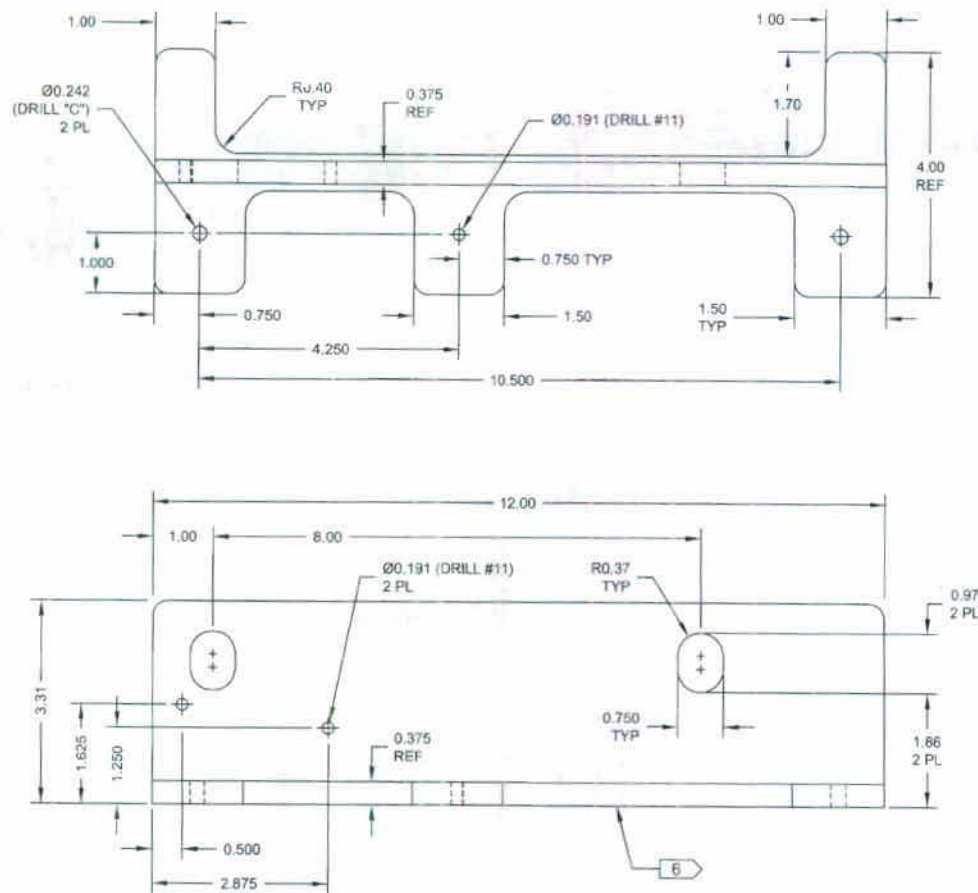
W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



W1064753

D3179-1 LITTER TIE DOWN BRACKET

NOTES:

- 1) MATERIAL: MAKE FROM D6201-012 EXTRUSION (6061-T6/T6511 PER QQ-A-200/8)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N D3179-1 USING FINE POINT PERMANENT INK MARKER ON THE BOTTOM FACE
- 7) WEIGHT: 2.3 lbs

RELEASED

DESIGN	BW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.		D3179	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		LITTER TIE DOWN BRACKET	NTS
DATE	08.11.07	COPYRIGHT © 1995 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED AND IS AVAILABLE TO THE PUBLIC. IT IS NOT TO BE USED FOR THE PURPOSE OF REPRODUCTION OR FOR OTHER PURPOSES WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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